STATE OF CALIFORNIA -- THE RESOURCES AGENCY **ARNOLD SCHWARZENEGGER,** *Governor*

DEPARTMENT OF WATER RESOURCES
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Honorable Don Perata
Senate President pro Tem
State Capitol, Room 205
Sacramento, California 95814

Dear Senator Perata:

Thank you for your strong interest in the Governor's climate change initiative. Climate change is perhaps the greatest challenge facing all of us over the course of the next century and beyond, and only by working collaboratively will we be able to deal effectively with the threats that lie before us.

We welcome the opportunity to report on the Department of Water Resources' (DWR) progress towards achieving the goals set out in the Governor's climate change initiative. DWR is actively engaged in developing a set of water and flood management policies that will provide a comprehensive approach to climate change. Many of these strategies were developed and refined from information in our "*Progress on Incorporating Climate Change into Management of California's Water Resources*" report, which was released in July 2006. On January 31 of this year, I provided additional information on our current and planned activities at the San Francisco Public Utility Commission's Water Utility Climate Change Summit to an audience of public water managers, industry, agricultural and environmental interests.

As you well know, there are two major aspects to a response to climate change. The first is mitigation. Mitigation involves the reduction or elimination of the greenhouse gas (GHG) emissions that contribute significantly to our changing climate. The second aspect, adaptation, is necessary to respond to changes that are already occurring due to warming temperatures. As the most recent Intergovernmental Panel on Climate Change (IPCC) report states, adaptation "will be necessary to address impacts resulting from the warming which is already unavoidable due to past emissions." As Californians move from initial realization of the magnitude of the issue and then forward on to action, DWR, as the State's largest water management agency, must simultaneously embrace and balance both strategies in order to continue to fulfill our mission to deliver affordable and reliable water to the citizens of California while also reducing our GHG emissions.

Water and Flood Infrastructure

Thank you for recognizing that climate change is already impacting our hydrology and our water infrastructure. I wholeheartedly agree that this year presents an extraordinary opportunity to consider the design and future adequacy of California's water and flood management systems. Steps must be taken to ensure the long term adaptability of these systems. This is why the Governor has proposed a variety of actions including new water storage capacity as part of his Strategic Growth Plan II in SB 59. We look forward to robust and substantive discussion on that bill with you and your fellow legislators.

Integrated Regional Water Management

Integrated regional water management (IRWM) is DWR's foundational strategy in the era of climate change. As climate change brings water supply uncertainty, IRWM planning provides a tool for regions to diversify their water portfolios, thus achieving greater resilience in the face of new climate extremes. IRWM puts the focus of water supply planning on the regional and local level, where flexibility and innovation are often greatest. Voters' passage of Proposition 84 has provided California with $1 billion to invest in this important regional planning process. DWR recently completed a first series of workshops held throughout the State, where we have raised the issue of energy use and GHG emissions as an important consideration in developing regional plans. After considering public input, we will provide further detail as we finalize our program guidelines in the coming year.

Flood Protection and Climate Change

Soon after the passage of Proposition 1E, DWR introduced the *FloodSafe* California program, a strategic initiative whose purpose is to improve flood protection and public safety. The initiative builds upon the state's ongoing flood management work, especially progress made over the past two years since Governor Schwarzenegger called for improved maintenance, system rehabilitation, effective emergency response, and sustainable funding.

In addition to the guiding principle to adapt flood management systems to cope with climate change, another of the *FloodSafe* California principles is to support and fund projects that offer multiple or regional benefits, including those that restore natural floodplain processes or integrate regional water management. For projects that would be part of the *State Plan of Flood Control for the Central Valley*, and that are ready for early implementation in FY 2007-2008, DWR has established a set of project criteria, many of which address the very concerns regarding conveyance capacity and in-channel flood storage that you raised in your letter. Specifically, DWR's criteria for Early Implementation Projects emphasize the construction of setback levees and other non-structural approaches to flood management, when feasible, in order to expand channel conveyance and in-channel flood storage, as well to provide important environmental benefits.

Energy Consumption

In a proactive and comprehensive effort to reduce the Department's carbon footprint, DWR, under the Resources Agency, recently filed an intent to register with the California Climate Action Registry. As a member of the Registry, DWR will perform a complete assessment of its GHG emissions, inclusive of the State Water Project. Upon completion of the evaluation, DWR will be able to provide you with a more detailed account of our overall energy use and GHG emissions.

Reid Gardner Power Plant

In 1979, DWR acquired a partial ownership interest in a generation unit located at the Reid Gardner power plant near Las Vegas, Nevada. Nevada Power Company owns the remaining share of the plant. DWR's interest expires in 2013. DWR uses electric output from the plant to support its operations, primarily delivery of water supplies to 29 contractors from Butte County in the north to the Metropolitan Water District of Southern California. Upon expiration of the contract, DWR will not extend its ownership interest in the Reid Gardner plant. In advance of the expiration of the contract, DWR is exploring alternative power options that will be both reliable and cost-effective for the affordable delivery of water. DWR is working to identify potential alternatives, including new generation resources, as well as potential generation technologies that may be available in 2013 or thereafter.

Energy Usage of the State Water Project

As you noted, the SWP consumes electricity as it delivers water to homes, businesses and farms. Our initial assessment shows that operation of the SWP contributes 0.6% to California's total GHG emissions. For reference, the largest source of GHGs in California is transportation, which accounts for 40.7% of the state's total emissions.

Although 0.6% is a small number compared to the other emission sources, DWR takes very seriously the need to reduce emissions from operation of the SWP. As DWR completes a GHG assessment through our membership with the Climate Action Registry, and as we move forward in our investigations of cleaner energy sources to replace our reliance on the Reid Gardner power plant, I am confident that the SWP will be able to significantly reduce its GHG emissions. I believe we will do so in advance of many of the deadlines outlined by the Governor and the Legislature.

The State Water Project's Role in Grid Stability

In addition to the vital role of the SWP as California's water delivery system and the functions it performs in managing floods, the SWP makes a critical contribution to the reliability and stability of the California Independent System Operator wholesale power grid. Because the SWP operates largely off-peak, our clean hydropower provides tremendous flexibility to the grid and in fact replaces "dirty" power sources during peak demand periods. To my knowledge, there has not yet been a comprehensive evaluation to quantify the environmental and economic benefits that DWR provides to the grid. However, those benefits should not be overlooked. As the state saw in 2000 and 2001, an energy crisis leads to drastic economic consequences, a reminder that the SWP's energy use cannot be examined in a vacuum, and that the threat of the unintended consequences inherent in significant changes to our power portfolio warrants thorough investigation.

California Energy Resources Scheduling (CERS) Contracts

As a bit of background, DWR/CERS entered the power supply business during California's 2000-2001 energy crisis. Due to DWR's strong line of credit and overall reputation for service, DWR was called upon by the Governor and the Legislature to purchase power for 27 million Californians at a time when supplies where scarce and prices were skyrocketing. On behalf of the State, DWR entered into power contracts that provide almost 20% of the power used by investor owned utilities. These power contracts provided the guaranteed revenue that allowed for the financing and construction of over 5,000 megawatts of state-of-the-art natural gas-fired power plants. These cleaner, more fuel efficient natural gas-fired power plants have significantly reduced reliance on older, less-efficient plants in the State.

When the Legislature put DWR into the power supply business, it required that the Department consider a number of factors when entering into contracts for power, including the intent to achieve an overall portfolio of contracts for energy resulting in reliable service at the lowest possible price, the desire to secure as much low-cost power as possible under contract, as well as the desire to secure firm and non-firm renewable energy. The Legislature also found that the furnishing of reliable, reasonably-priced electricity is essential to the safety, health and well-being of the people of California. As opportunities for contract amendments arise, DWR does look for options that would add more renewable power to the portfolio, consistent with all of these directives.

Energy Efficiency in Water Usage

DWR has authority, through a variety of sources, to develop recommendations to improve water use efficiency, provide incentives for implementing water use efficiency measures through financial assistance programs, and evaluate statewide implementation of water use efficiency measures. As you note, DWR describes improving water use efficiency as a foundational action in the California Water Plan, and we are taking proactive steps to ensure significant progress.

DWR has successfully administered water use efficiency grant programs provided by a number of bond measures over the past decade. All of our water management grant programs require that applicants complete Urban Water Management Plans that detail their implementation of water use efficiency measures. We are currently evaluating proposals submitted for a $35 million solicitation authorized by Proposition 50. In light of the growing recognition of the important relationship between water and energy use, in this solicitation we have required that applicants evaluate the energy impacts or benefits of their proposals, and are using that information as a selection criterion.

As you are well aware, California is a global leader on climate change issues. Our development of strategies for protecting the sustainability of the State's water resources will continue to set precedent. DWR looks forward to working with you and your fellow legislators toward developing effective solutions to the challenges that are before us. We will also continue to work with your staff, as we have over the past year. We appreciate your continued support and interest and invite your partnership in furthering California's leadership on climate change issues.

Sincerely,

Lester A. Snow
Director